Composit application

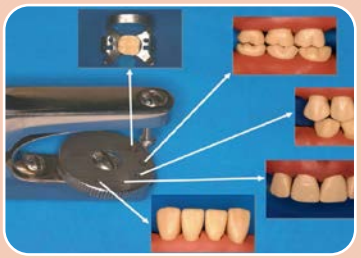
Simple Guide to start

Rubber dam isolation

Rubber dam sheets with different colors

Young frames

Punch forceps



perforating holes

Components of

the clamps

Rubber dam isolation

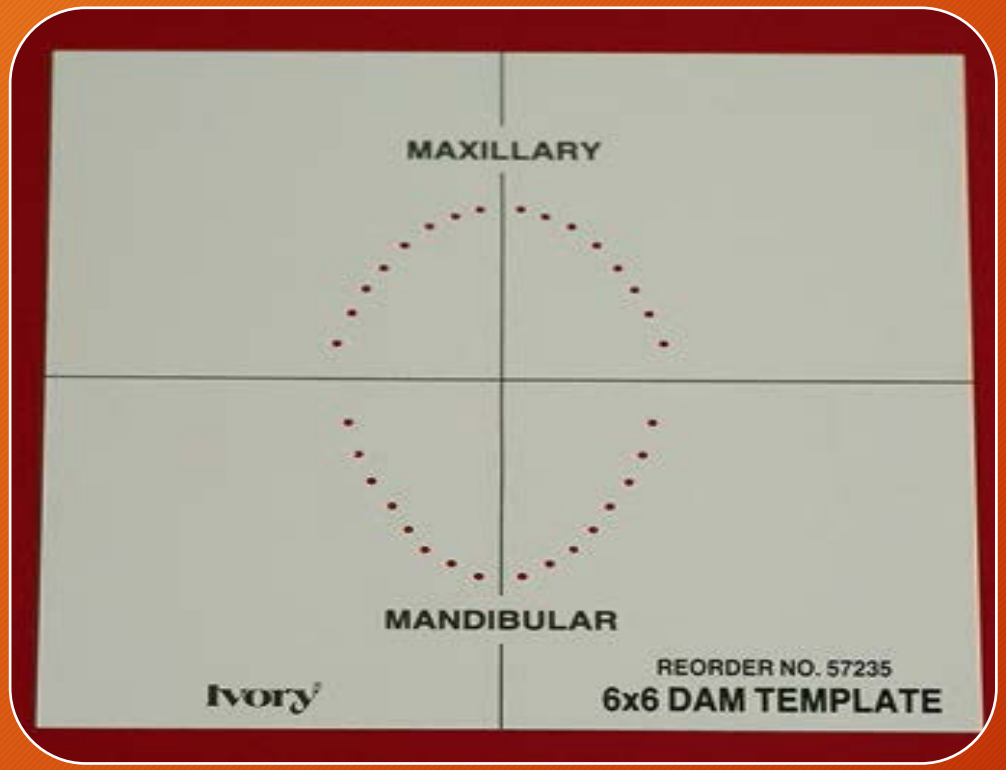
Clamps most commonly used in operative dentistry

gingival retractor clamps for posterior teeth

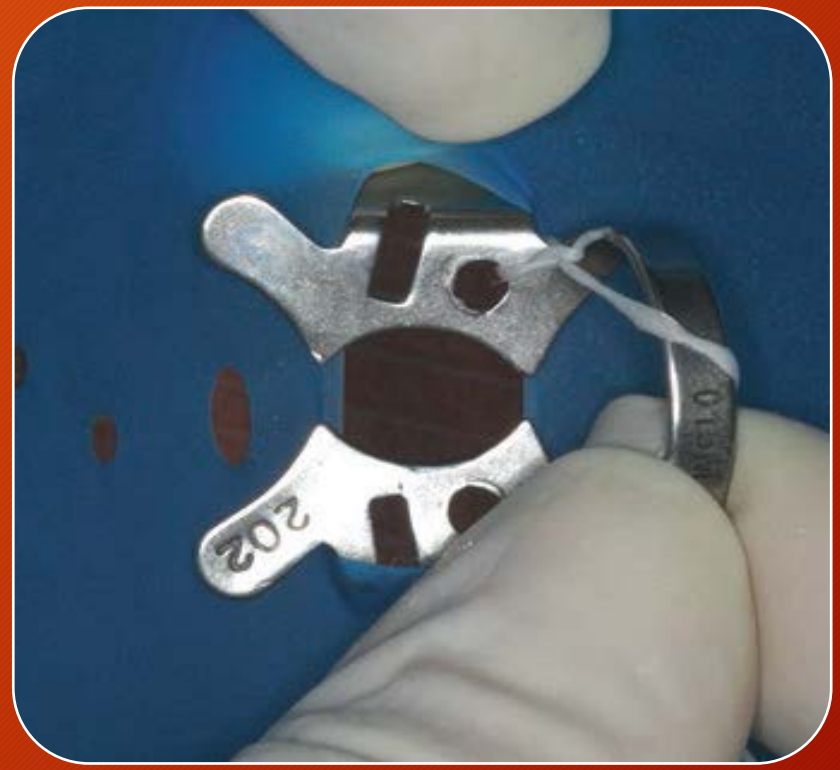
Clamp forceps

Placing the Rubber Dam

Placement of the Whole Set: Clamp, Dam, and Frame



Placement of the Whole Set: Clamp, Dam, and Frame



Placement of the Whole Set: Clamp, Dam, and Frame

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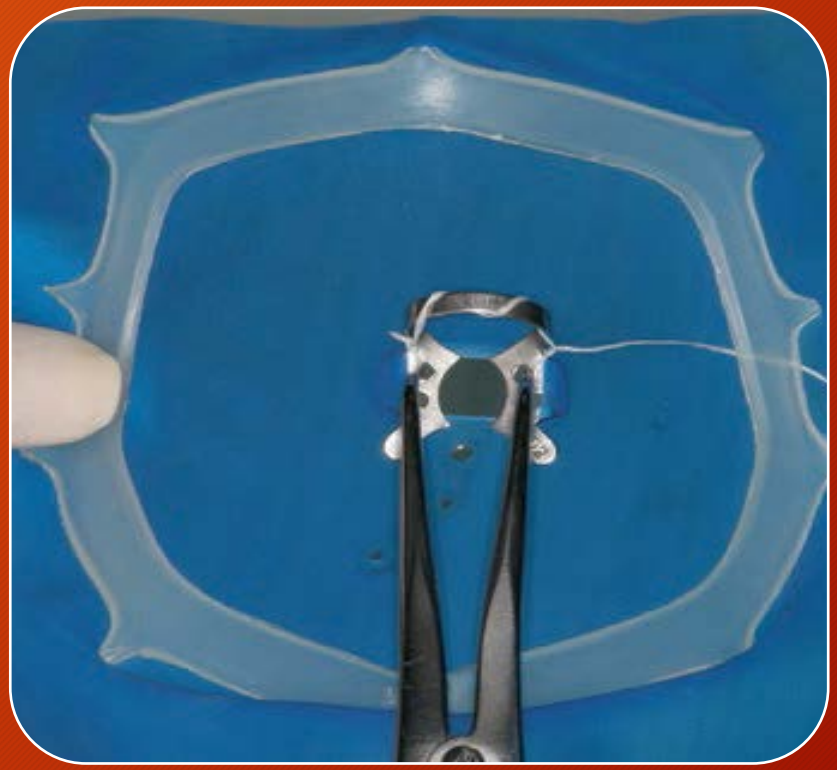

Placement of the Whole Set: Clamp, Dam, and Frame

Placement of the Whole Set: Clamp, Dam, and Frame

2) Placement of the Dam and Frame Set Over a Pre-positioned Clamp

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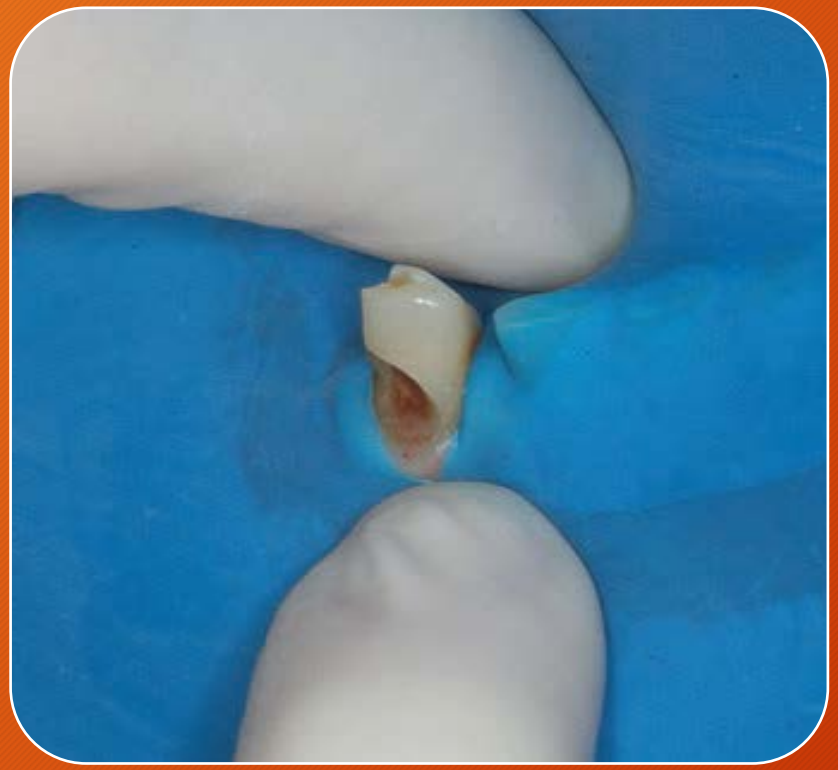
3) Placement of the Dam and Wingless Clamp Followed by the Frame

3) Placement of the Dam and Wingless Clamp Followed by the Frame

3) Placement of the Dam and Wingless Clamp Followed by the Frame

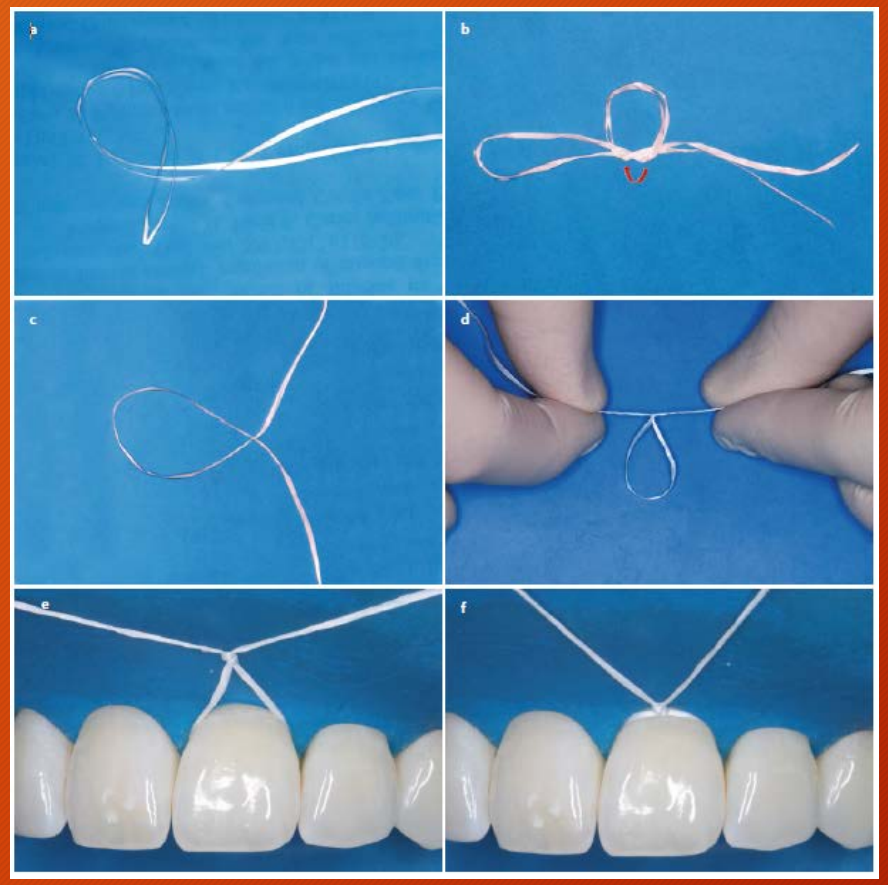
3) Placement of the Dam and Wingless Clamp Followed by the Frame

4) Placement of the Clamp over the Rubber Dam



4) Placement of the Clamp over the Rubber Dam

Sequence to prepare ligatures using a running knot



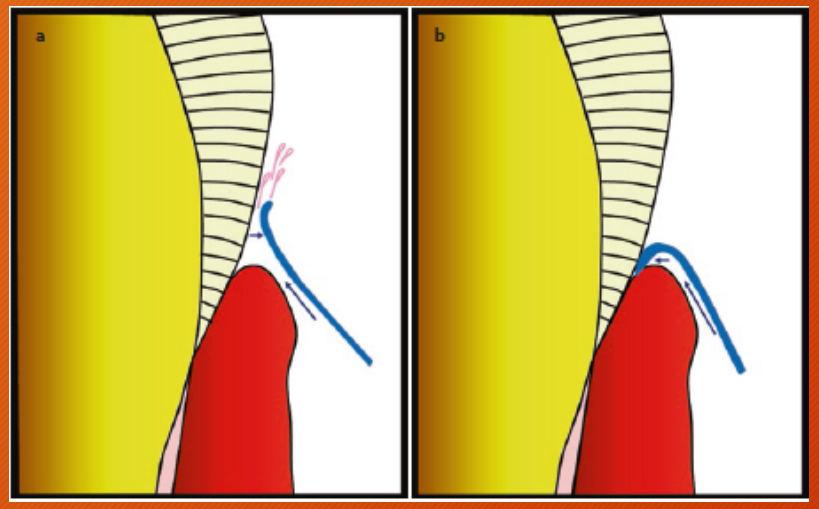
Dental dam stabilizing.

Dental dam stabilizing cord roll used to stabilize the rubber dam

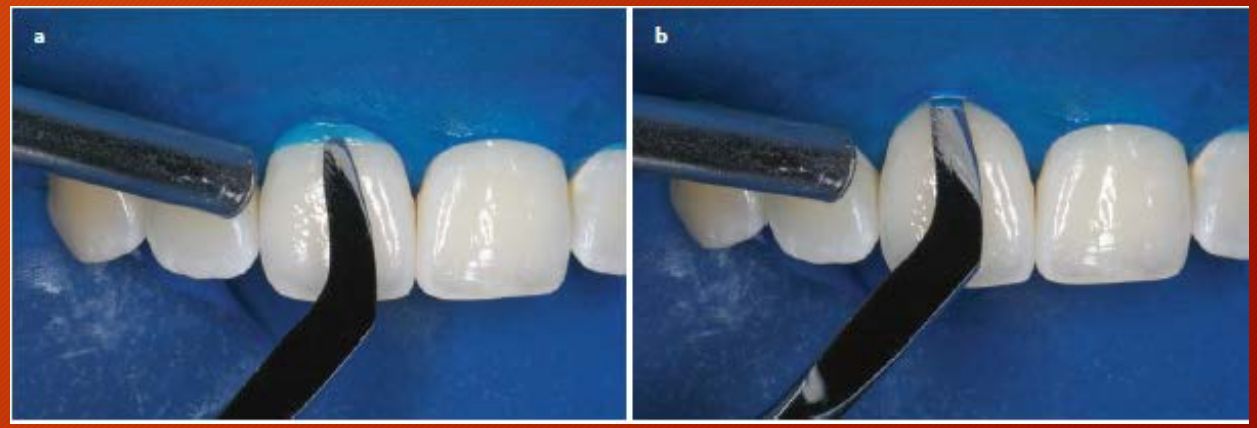
A piece of rubber is cut from the edge of the dam

Inversion of the rubber dam.

Schematic drawings showing the importance of inverting the rubber dam into the crevice.



Inversion of the rubber dam into the crevice using a bold instrument and air stream



Matrix and Wedge Systems

Types of Matrixs

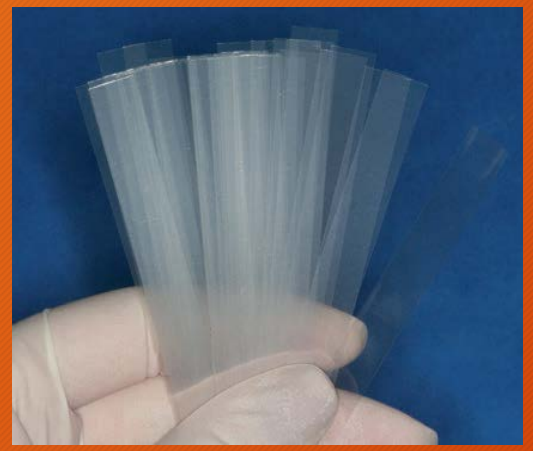
- Tofflemire matrix

Types of Matrixs

- Pre-contoured sectional matrices

Types of Matrixs

Straight polyester strips



Pre-contoured polyester strips for posterior teeth

Types of wedges

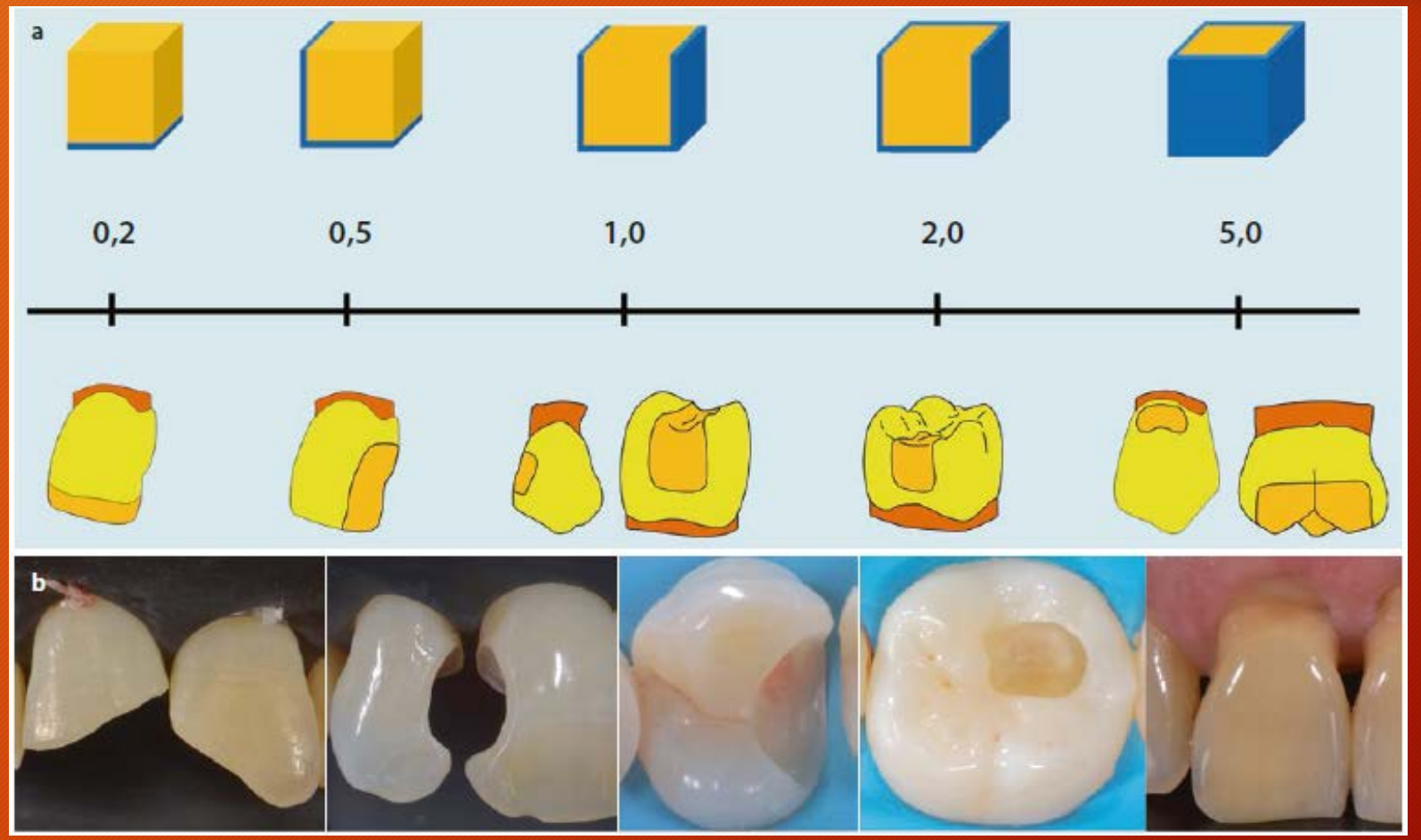
wooden wedges

transparent and opaque plastic wedges

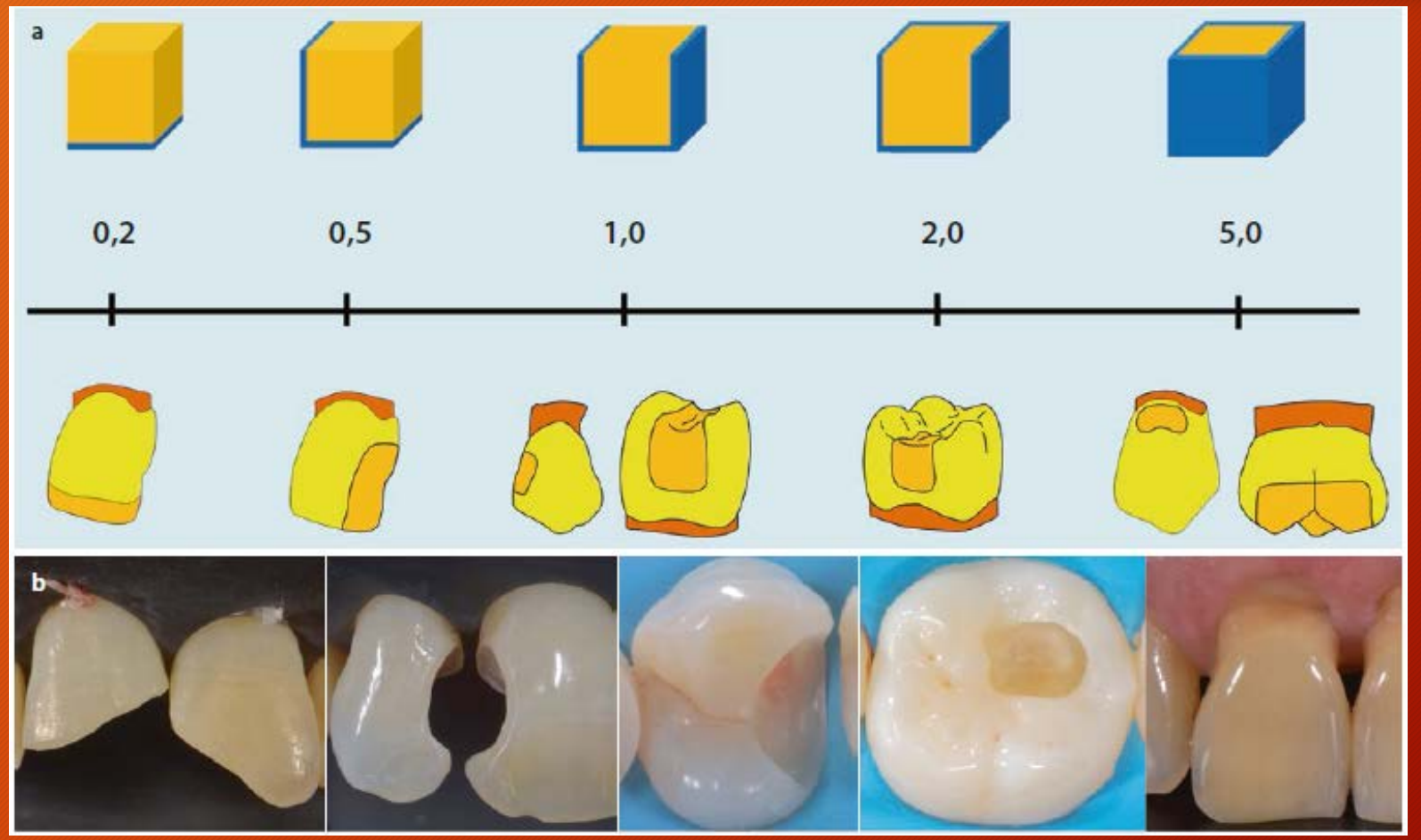
curved wedges

Elastic Wedges

C-factor



C-factor

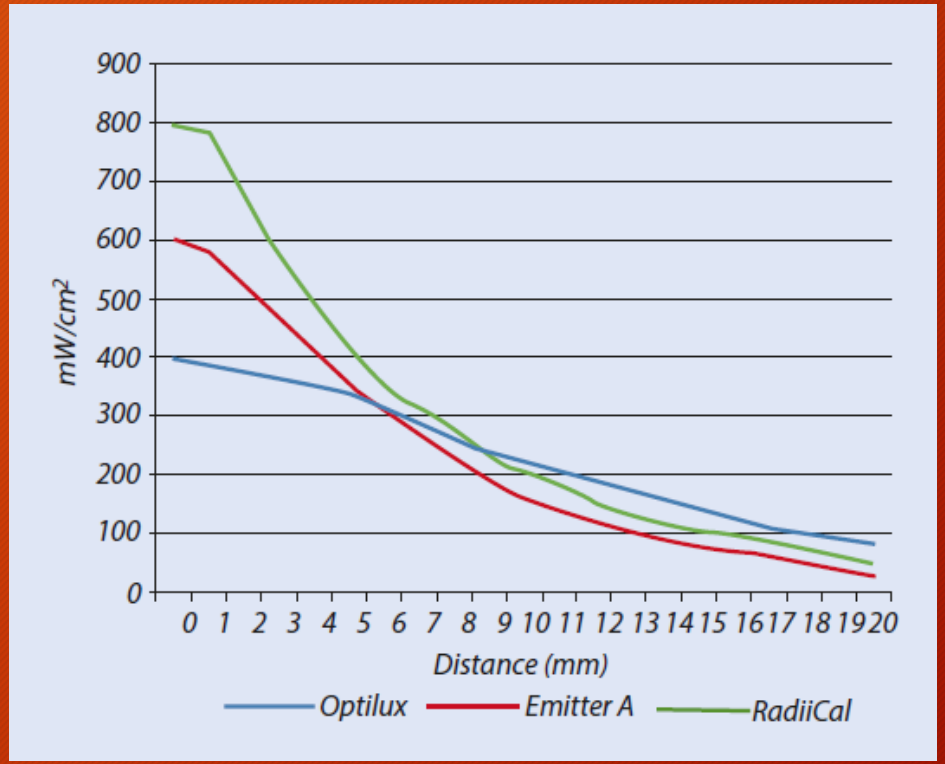


curing time

- Due to all the difficulties to obtain an adequate polymerization on the intraoral environment, the curing time should be increased at least in 50% from the recommended by the composite manufacturer, since this time is calculated on ideal conditions.
- There is no damage for the restoration when receiving more light than the necessary, although the opposite is not true.

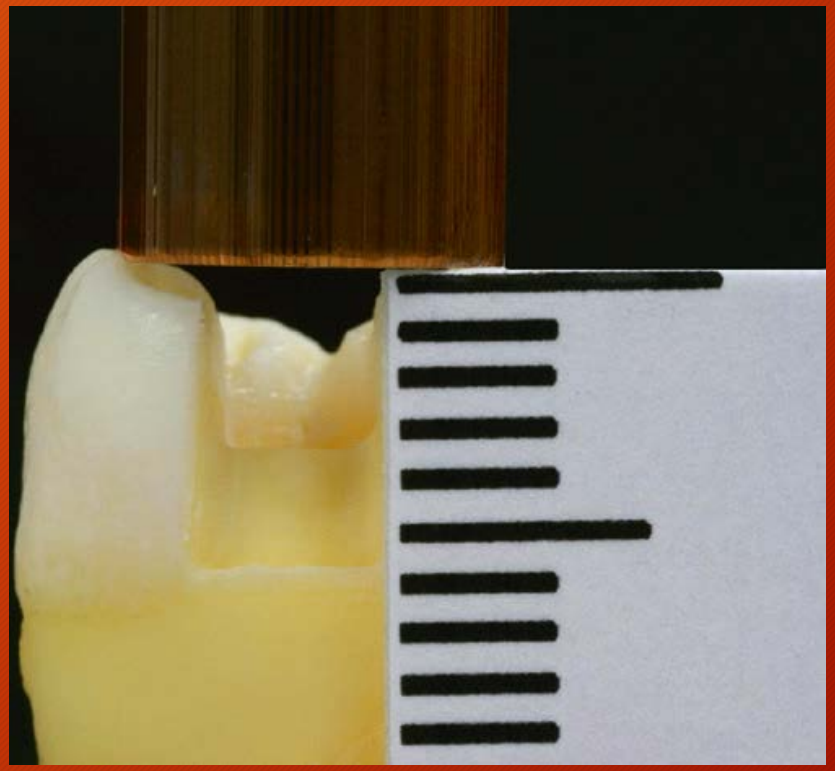
curing time

- When the distance between the light tip and the composite is increased, the light spread is higher, reducing the amount of incident irradiance.
- Therefore, distance from the light guide tip to the material to be cured **should be as close as possible**, generally 1–2 mm.



curing time

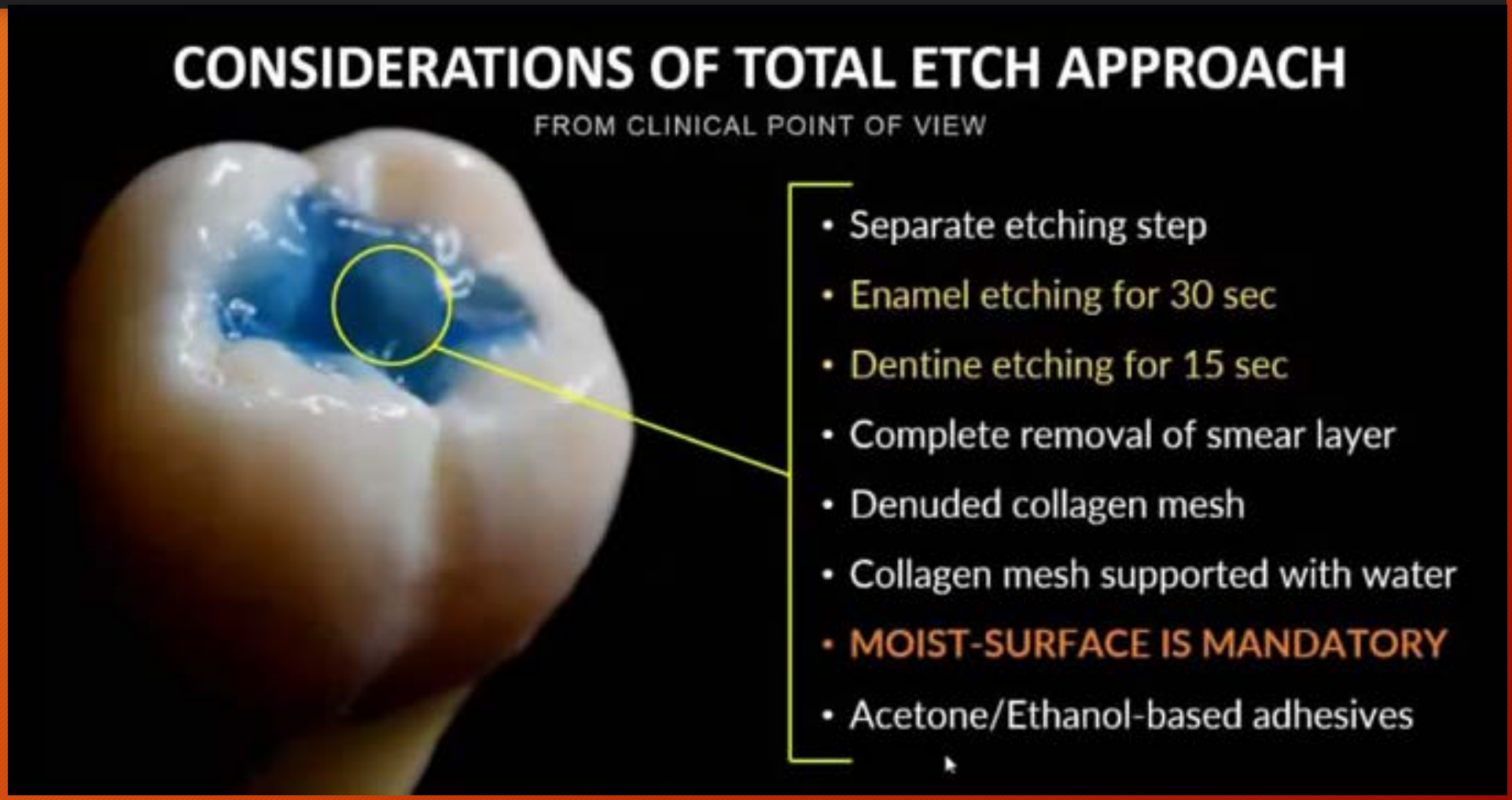
- Real curing distance on the proximal box of posterior teeth when the composite is applied on the gingival wall



bonding

DENTAL ADHESIVE SYSTEM

DENTAL ADHESIVE SYSTEM



DENTAL ADHESIVE SYSTEM

DENTAL ADHESIVE SYSTEM

composite application

- There are two type of composite application

1-multiple layer

- It is may be
- *Simple layring tech.(one shade restoration).
- *Less simple layring tech.(two shade restorations or body and enamel shads).

- 2- one block (bulk fill
- When use this application is prefered heating the composite

Composite finishing and polishing

Composite finishing and polishing

- The primary purpose of finishing and polishing composite restorations is to create a restoration
- 1-smooth.
- 2-uniform.
- 3-easily cleaned by the patient.
- 4- Increase the longevity of the restoration .
- 5-decrease the incidence.

Composite finishing and polishing

During the finishing

1-contours are corrected

2-margins and irregularities are smoothed

During the polishing

a smooth lustrous finish is produced.

- There are many tools used in finishing and polishing
- 1-burs
- 2-finishing strips
- 3- finishing disks
- 4-points cups
- 5- pastes
- 6- brushes

Class I Preparations

Class I

Class I

Class I

Class I

Class I

Class I

Class I

clear oxygen-blocking gel

Class I

finishing with fine grit diamond points

polishing with silicon carbide brushes

Class I

Surface Sealing

Surface Sealing

- **seal the cracks** that may occur on the enamel surface, close to the restoration margin, due to the shrinkage stress, as well as the marginal gaps.
- **reduce the wear rate**.
- Effect lasts for only 6 months and a new application is necessary.

surface sealant

Protocol

- acid etching of the composite surface and tooth structure 1–2 mm beyond the margins is performed for 15 s
- rinsing with air/water spray and drying with airstream.
- surface sealant is applied, followed by an airstream to produce a very thin coat.
- light-curing for 10 s.

Note :surface sealant is a dedicated material, basically an unfilled solvent-free monomer blend, and not a regular adhesive or pit and fissure sealant.

Class I

Restoration of Proximal Lesions (Class II)

Restoration of Class II

Restoration of Class II

Restoration of Class II

Restoration of Class II

Restoration of Class II

Restoration of Class II

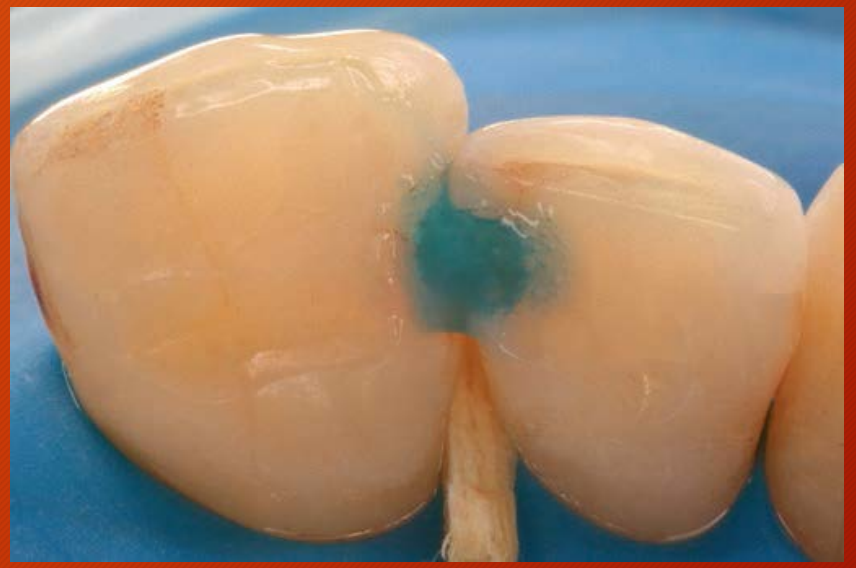
Restoration of Class II

Restoration of Class II

Restoration of proximal lesions through the lingual access.

Restoration of proximal lesions through the lingual access.

Restoration of proximal lesions through the lingual access.



Restoration of proximal lesions through the lingual access.

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Restoration of proximal lesions through the lingual access.

Restoration of Class IV preparation using polyester clear matrix.

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Restoration of Class IV preparation using polyester clear matrix.

Restoration of Class IV preparation using polyester clear matrix.

- insertion of the matrix into the gingival sulcus, between the interdental papilla and the tooth, surrounding the tooth, pressing it cervically with the index finger

Restoration of Class IV preparation using polyester clear matrix.

Restoration of Class IV preparation using polyester clear matrix.

Restoration of Class IV preparation using polyester clear matrix.

Restoration of Class IV preparation using polyester clear matrix.

Restoration of Class IV preparation using palatal silicone index and previous wax-up of the restoration

Restoration of Class IV preparation using palatal silicone index.

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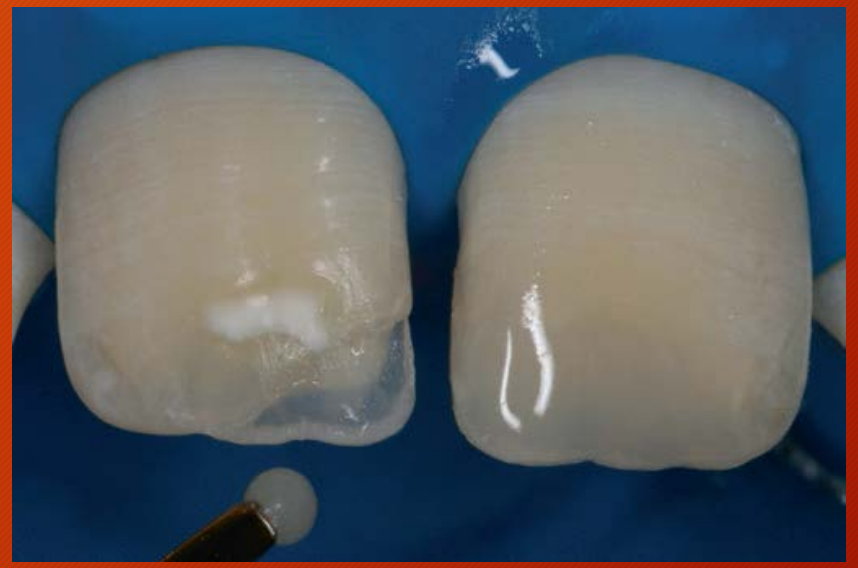

Restoration of Class IV preparation using palatal silicone index.

Restoration of Class V

Restoration of Class V

Restoration of Class V

Restoration of Class V

Restoration of Class V

Restoration of Class V

Restoration of Class V

Restoration of Class V

Restoration of Class V

Reference

- Modern Operative Dentistry Principles for Clinical Practice, Carlos Rocha Gomes Torres